

NON-PUBLIC?: N
ACCESSION #: 8910030514

LICENSEE EVENT REPORT (LER)

FACILITY NAME: Yankee Nuclear Power Station PAGE: 1 OF 3
Rowe, MA 01367

DOCKET NUMBER: 05000029

TITLE: Reactor Scram Due To Inadvertent Actuation of RPs
EVENT DATE: 08/29/89 LER #: 89-013-00 REPORT DATE: 09/28/89

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 2 POWER LEVEL: 001

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Russell A. Mellor, Technical Director

TELEPHONE: 413-424-5261

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On August 29, 1989, at 1738 hours, following a maintenance outage, while in Mode 2 at approximately 1% power with Main Coolant System pressure at 2000 psig, a Reactor Scram resulted when the Train B Nonreturn Valve (NRV) Trip switch was inadvertently placed in the Trip position. Plant response following receipt of the trip signal was normal.

The root cause of this event is attributed to personnel error. A contributing cause was a procedural deficiency. The control room operator inadvertently turned the Train B NRV Trip switch to the trip position while performing procedure steps that were not required for the plant operating conditions. The procedure has been revised to eliminate the switch operation and a caution sign affixed to the control switch

cabinet. An evaluation of the control panel switch design will be initiated to determine if human factors engineering is appropriate.

This is the second event of this nature. A previous reactor scram due to inadvertent mispositioning of the NRV Trip switch was reported as LER 86-13. There was no adverse effect on the health and safety of the public as a result of this event.

END OF ABSTRACT

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On August 29, 1989, at 1738 hours, while in Mode 2 a Reactor Scram resulted during startup, when the Train B Nonreturn Valve (NRV) Trip switch EIIS:HS! was inadvertently placed in the trip position. The plant was at 1% power with the Main Coolant System EIIS:AB! pressure at 2000 psig, during a plant startup following a maintenance outage. Plant response following receipt of the trip signal was normal.

The NRV control circuitry is comprised of two trains, Train A and Train B. Each train has a Trip Switch and a Block Switch. These switches have 3 positions; Reset, Neutral, and either Trip or Block. Additionally, each NRV has two three position control switches, Train A and Train B: close, auto and key lock open. Placing the Trip Switch in trip will close the NRVs and cause a reactor scram. Placing the Block Switch in the block position will allow the NRVs to be open with Main Coolant pressure less than 1800 psig.

Prior to the reactor scram, the Control Room Operator (CRO) was performing plant procedure OP-2256, Attachment A, "Main Steam System Startup". The procedure required placing the NRV Train A and Train B switches in the Block position and verifying the associated panel alarm actuated. The Panel alarms did not actuate.

The CRO reset the Train A and B NRV Trip and Block switches, then placed the Block switches in the Block position. The Panel alarms did not actuate as indicated by procedure. The CRO informed the Plant Operation Manager (POM), the Shift Supervisor (SS), and the Supervisory Control Room Operator (SCRO) that performance of the procedure as written did not yield the indicated response.

The procedure steps were repeated with the NRV control switches in the Auto position. During the process of resetting the Trip Switches the CRO inadvertently went to the Trip instead of the Reset position for Train B.

All systems performed as designed following the trip signal. The cause

of the trip was attributed to personnel error; placing the Train B Trip switch in the inappropriate position. A contributing cause of this event was determined to be a procedure deficiency; steps were required to be performed that were not required for the plant conditions.

A review of system design to determine why the system response indicated in the procedure did not occur revealed that, with the Main Coolant system pressure above 1800 psig, the Panalarm would not actuate when the Block switch was placed in the Block position. It was determined that procedure steps were not required for the startup conditions.

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The procedure was revised to remove the requirement for placing the Train A and Train B Block switches in the Block position and to include a caution statement against placing the Train A and Train B Trip switches in the Trip position. A caution has also been placed at the NRV control circuitry panel. Furthermore, an evaluation of the design of the control-panel switch design will be initiated to determine if human factors engineering is appropriate.

This is the second event of this nature. A previous reactor scram due to inadvertent mispositioning of the NRV Trip switch was reported as LER 86-13. There was no adverse affect to the health and safety of the public.

ATTACHMENT 1 TO 8910030514 PAGE 1 OF 1

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Star Route, Rowe, Massachusetts 01367

September 28, 1989
BYR 89-146

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: Licensee Event Report No. 50-29/89-013
Reactor Scram Due To Inadvertent Actuation of RPS

Dear Sir:

In accordance with, 10 CFR 50.73(a)(2)(iv), the attached Licensee Event Report is hereby submitted.

Very truly yours,

Timothy K. Henderson
Acting Plant Superintendent

LDF/pkg
ENCLOSURE

cc: 3! NSARC Chairman (YAEC)
1! Institute of Nuclear Power Operations (INPO)
1! USNRC, Region I
1! Resident Inspector

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